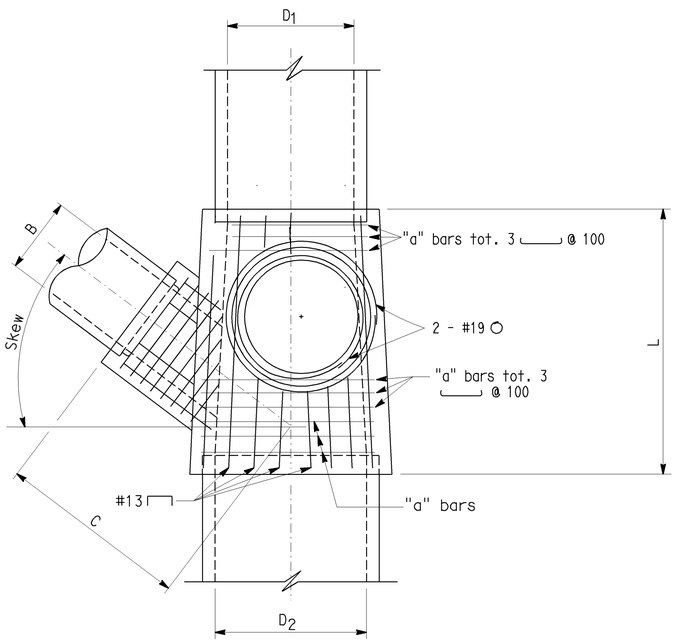
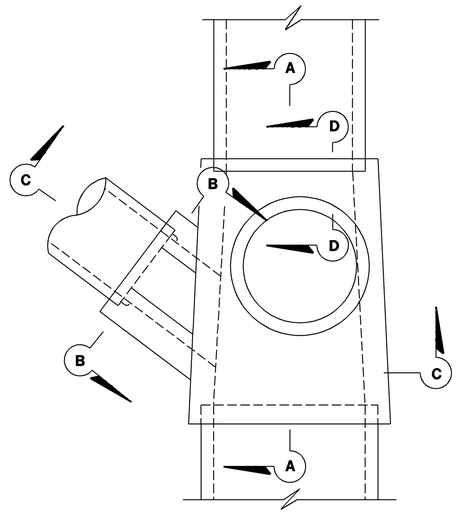


PLAN



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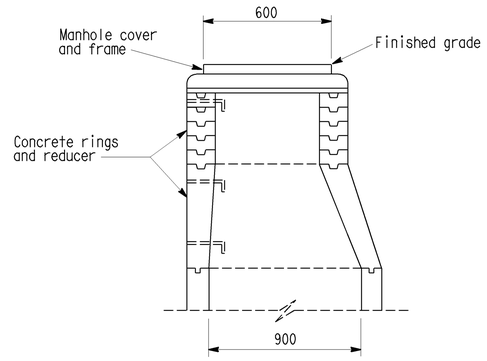
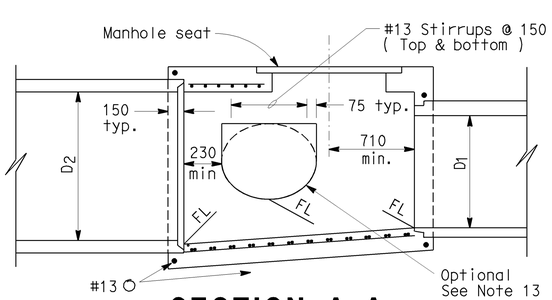


TYPE MH

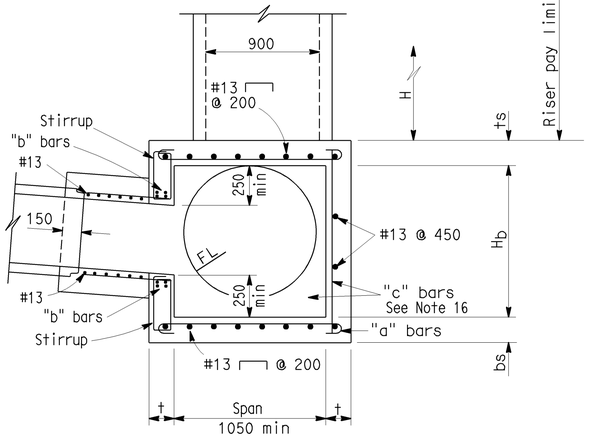
UPPER STRUCTURE

Span	"a" bars	Top and Bottom slab thickness (ts, bs)✳
1050	#13 @ 100	200
1200	#13 @ 100	200
1350	#16 @ 125	200
1500	#16 @ 115	200
1650	#19 @ 140	200
1800	#19 @ 140	230
1950	#19 @ 115	230
2100	#19 @ 100	240

✳When fill over junction structure is 600 mm or less, ts shall be increased by 50 mm.



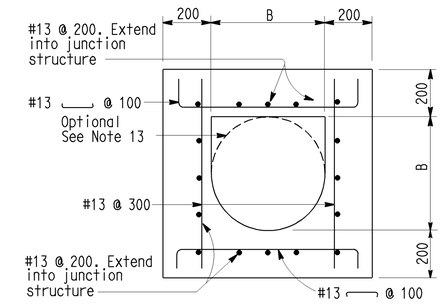
SECTION A-A



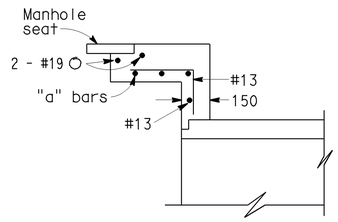
SECTION C-C

Hb	"c" bars	Sidewall thickness (t)
1650 or less	#13 @ 100	200
1950	#16 @ 100	215
2100	#16 @ 100	230
2400	#19 @ 100	240

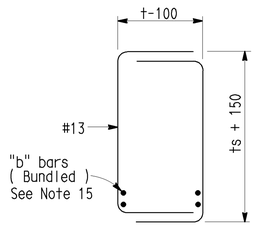
B	"b" bars Top & bottom
750	#16 tot. 4
900	#16 tot. 4
1050	#16 tot. 4
1200	#16 tot. 4
1350	#16 tot. 4
1500	#19 tot. 4



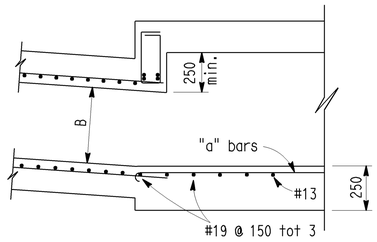
SECTION B-B



SECTION D-D



STIRRUPS



SECTION C-C (OPTIONAL)

Maximum fill height = 2.4 m
For reinforcement and details not shown, see Section C-C

DESIGN NOTES

1. Designed in conformance with Bridge Design Specifications (1983 AASHTO Specifications with revisions by Caltrans).
2. Live load: HS20-44 truck. Earth pressures: 22.0 kPa/m vertical, 15.7 kPa/m horizontal.
3. Unit stresses: f'_c = 25 MPa; f_y = 400 MPa
4. Maximum fill height = 6 m.

GENERAL NOTES

1. Plans shall designate: inlet and outlet pipe diameters, upper structure or manhole (if required), lateral pipe diameter and skew (if required), C,H, and H_b . Manhole or lateral may be omitted.
2. Upper structure, when required, may be any designated inlet type as shown on Standard Plan D72, D73, D74, D75 or this sheet.
3. Risers shall be positioned to either side of the structure as shown.
4. Each riser shall have a ladder. For details see Standard Plan D93.
5. Thickness of deck shall vary as necessary to provide a level manhole seat.
6. Reinforcing steel shall be placed 50 mm clear, except as shown.
7. Maximum skew of lateral pipe B is 45^0.
8. Lateral may be placed in either side wall.
9. Where D_1 and/or D_2 are less than 1050 mm, clear distance between side walls shall be 1050 mm. End walls shall be 150 mm thick with #13 @ 300 mm placed both ways.
10. Side walls shall be flush with the inside of the inlet and outlet pipes when pipe diameters are 1050 mm or more.
11. L is 1500 mm minimum.
12. When C is not specified, bring the lateral directly into the wall of the structure.
13. When C is specified, contractor may, at his option, bring the lateral directly into the wall for use as an inside form. A collar conforming with the wall thickness and reinforcement as shown in section B-B shall be poured around the pipe.
14. When lateral is extended directly into the wall, it shall be mitered as necessary to be flush with wall.
15. "b" bars shall extend a minimum of 200 mm on either side of the opening.
16. Adjacent to each side of the opening, place additional reinforcement equivalent to half the interrupted main reinforcement.

NO SCALE

ALL DIMENSIONS ARE IN MILLIMETERS UNLESS OTHERWISE SHOWN

Caltrans Metric

DIST.	COUNTY	ROUTE	KILOMETER POST TOTAL PROJECT	SHEET NO.	TOTAL SHEETS

REGISTERED ENGINEER - CIVIL

PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER No. Exp. CIVIL STATE OF CALIFORNIA

The State of California or its officers or agents shall not be responsible for the accuracy or completeness of electronic copies of this plan sheet.

STANDARD DRAWING

RELEASE DATE	11/8/99	DESIGN BY	PAUL COTTER	CHECKED	KENNY KWONG	RELEASED BY
FILE NO.	xs17-010	DETAILS BY	R.YEE	CHECKED	PAUL COTTER	
		SUBMITTED BY	PAUL COTTER	DRAWING DATE	4/99	OFFICE CHIEF

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

DIVISION OF STRUCTURES
STRUCTURE DESIGN

BRIDGE NO.

KILOMETER POST

JUNCTION STRUCTURE

DS OSD 2147A (METRIC) (REV. 2/25/97)

ORIGINAL SCALE IN MILLIMETERS FOR REDUCED PLANS 0 10 20 30 40 50 60 70 80 90 100

CU EA

DISREGARD PRINTS BEARING EARLIER REVISION DATES →

REVISION DATES (PRELIMINARY STAGE ONLY)

SHEET OF

USERNAME => jsanchez

xs17-010.dgn

DATE PLOTTED => 16-JAN-2004 TIME PLOTTED => 15:18